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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,813	07/07/2004	Brett Robert Lowery	04-515	7182
20306	7590	10/21/2005	EXAMINER	
MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP			JOHNSON, STEPHEN	
300 S. WACKER DRIVE			ART UNIT	
32ND FLOOR			PAPER NUMBER	
CHICAGO, IL 60606			3641	

DATE MAILED: 10/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/500,813

Applicant(s)

LOWERY ET AL.

Examiner

Stephen M. Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the depth control means (see claim 1); the at least two linkages (see claim 1); and the suitable carrier vehicle (see claim 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 4, what structural item is intended to correspond to the claimed "depth

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control means"? In claim 1, lines 6-7, it is not understood as to how the number of intersecting plates plane's would be properly described as having planes that lie substantially parallel to the direction of travel. It appears that the planes of the plates lie in a direction other than the direction of movement just as the tines of the blade element do (see figs. 1 and 3).

In claim 2, line 2, the phrase "the vertical plane" lacks an antecedent. Claim 5 claims a "relatively weak material". Relative to what? In claim 8, line 2, how does the term "substantially horizontally disposed bracing member" relate to the previously claimed "a second set of plates"? In claim 9, line 3, how does the term "each linkage" relate to the previously claimed "at least two linkages"? In claim 9, line 3, what is the term "it" intended to correspond to? In claim 10, line 3, the phrase "the outer piece" lacks an antecedent.

The term "thin" in claim 6 is a relative term which renders the claim indefinite. The term "thin" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not clear as to what thicknesses of material would be inclusive or exclusive by the phrase "a thin sheet".

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (539) in view of Schubach (012) or Hollingworth Jr..

Evans (539) discloses a mineplough comprising:

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a) at least one blade element;	50
b) blade angle not parallel to direction of movement;	col. 2, lines 44-52
c) tines;	50a
d) depth control means;	33
e) at least 2 linkages;	17, 18
f) a number of intersecting plates;	51, 52, 54
g) linkages including a clevis hitch;	11, 12
h) a set of vertical plates; and	51, 52
i) a set of horizontal plates.	30

Evans applies as recited above. However, undisclosed is at least one crushable element capable of absorbing energy contained in each of the linkages. Schubach (items 70, 71, and 72) and Hollingworth Jr. (items 10D, 10E, and 10F) each teach at least one crushable element capable of absorbing energy. Applicant is substituting one clevis hitch arrangement for another in an analogous art setting as explicitly encouraged by the primary reference (see Evans (col. 1, lines 70-72)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Schubach or Hollingworth Jr. to the Evans plough and have a plough with a particular type of clevis hitch that contains a crushable element capable of absorbing energy.

5. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (539) in view of Schubach (012) or Hollingworth Jr. as applied to claims 1-4 and 7-8 above, and further in view of Livermore (635).

Evans (539), Schubach (012), and Hollingworth Jr. apply as previously recited. However,

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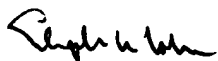
undisclosed is a thin sheet of metal covering the blade. Livermore teaches a thin sheet of metal covering the blade (col. 4, lines 74-75). Applicant is selecting a means to protect the plough blade and putting it to use as it is already commonly known to be used in this art. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Livermore to the Evans in view of either Schubach or Hollingworth Jr. plough and have a plough whose blades include a protective cover.

6. Claims 9-10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877 and whose e-mail address is (Stephen.Johnson@uspto.gov). The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The Central FAX phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.



STEPHEN M. JOHNSON
PRIMARY EXAMINER

Stephen M. Johnson
Primary Examiner
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SMJ

October 18, 2005